



COMPRESSED AIR
& GAS TREATMENT

DryXtreme - NST

Heat regenerated adsorption dryers

1,93 – 148,4 m³/min.



NST heat regenerated adsorption dryers process large volumes of compressed air economically since a minimum flow of compressed air is required to regenerate the desiccant. An internally mounted heating element regenerates the desiccant by indirect thermal exchange. A -40 °C dew point protects critical equipment and processes.

The desiccant has a high drying capacity for moisture and a long service life. This ensures permanently low and stable pressure dew points.



Cooling, conditioning, purifying.

Operation

The air to be purified crosses the left vessel and it is dried during its passage on the adsorbent.

Simultaneously, the regeneration of the right vessel, previously exhausted, is carried out by an internal heating element inserted into a specific tube to avoid any abrasion of the desiccant. After the heating phase, the heater turns off and the desiccant bed is cooled by natural exchange and by a little passage of purge air. Before the inversion, the regenerated tower is re-pressurized. After the inversion, the left vessel is gradually depressurized and it begins the regeneration phase while the right vessel begins the working phase.

The sequence of the phases is completely automatic and it is controlled by safety and control devices.

Accessories and kits

- Thermal insulation of vessels;
- Eco control analysis system: automatic purge saver based on a dew point probe;
- Safety valves on each tower;
- Service kit.

Standard features

- PLC microprocessor control;
- Desiccant material: activated alumina with high abrasion resistance (15,000 hours of operation);
- Power supply: 400 V \pm 10% / 3Ph / 50Hz;
- Thermostatically controlled heating element;
- Stainless steel manometers and thermometers;
- Pressure vessels are CE approved and designed according to AD-Merkblatter 2000;
- IP54 electrical panel;
- External user alarm;
- RS485.

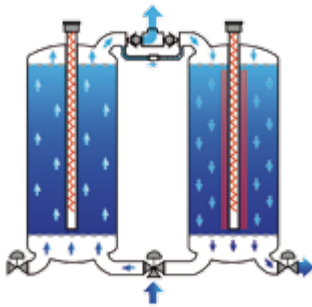
Operating limits

- Maximum working pressure: 10 bar(g);
- Maximum inlet temperature: +45 °C;
- Minimum/Maximum ambient temperature: +5 °C / +45 °C;
- Versions for lower or higher working pressures;
- Versions for higher temperatures are available on request.

Other versions available on request

- Molecular sieves version.

Regeneration by internal heating elements.



PLC controller.



Valve group.



| NST model | Air flow | | | | Air connections | Dimensions (mm) | | | Weight kg |
|-----------|-------------------|---------------------|-------------------|---------------------|-----------------|-----------------|-------|--------|--------------|
| | activated alumina | | molecular sieve | | | Width | Depth | Height | |
| | m ³ /h | m ³ /min | m ³ /h | m ³ /min | | | | | |
| NST 18 | 116 | 1,93 | on request | | 3/4" | 940 | 350 | 1658 | 160 |
| NST 30 | 193 | 3,22 | on request | | 1" | 940 | 350 | 1912 | 230 |
| NST 45 | 290 | 4,83 | on request | | DN 32 | 933 | 380 | 1794 | 300 |
| NST 70 | 451 | 7,52 | on request | | DN 40 | 1070 | 410 | 2108 | 390 |
| NST 110 | 709 | 11,8 | on request | | DN 50 | 1320 | 560 | 1983 | 520 |
| NST 140 | 903 | 15,0 | on request | | DN 65 | 1390 | 610 | 2005 | 640 |
| NST 210 | 1354 | 22,6 | on request | | DN 65 | 1490 | 700 | 2233 | 855 |
| NST 300 | 1935 | 32,2 | on request | | DN 80 | 1750 | 600 | 3010 | 1675 |
| NST 400 | 2580 | 43,0 | on request | | DN 100 | 2122 | 720 | 3051 | 2270 |
| NST 510 | 3290 | 54,8 | on request | | DN 100 | 2300 | 800 | 2897 | 2600 |
| NST 630 | 4064 | 67,3 | on request | | DN 125 | 2400 | 920 | 3236 | 3560 |
| NST 810 | 5225 | 87,0 | on request | | DN 150 | 2720 | 1020 | 3496 | 4620 |
| NST 1000 | 6451 | 107,5 | on request | | DN 200 | 2985 | 1100 | 3595 | 5300 |
| NST 1380 | 8903 | 148,4 | on request | | DN 200 | 3285 | 1250 | 3649 | 6620 |

Data refers to the following working conditions: air FAD 20 °C/1 bar a, pressure 7 bar(g), relative humidity 100%, air inlet temperature 35 °C, pressure dew point -40 °C. For higher air flow rates or differing working conditions contact MTA. Weights are net (without packing).



MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.



MTA products comply with European safety directives, as recognised by the CE symbol.



GOST Certification

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